

## AMENDMENTS TO CLAIMS

*Claims 1-2, 4-8, 11-15, 18-30, 32-34 and 36-41 are amended, and claims 17 is being canceled, as shown below. All pending claims are reproduced below, including those that remain unchanged.*

1. (Currently Amended): An ion generator comprising:

an ion emitter ~~a first~~ electrode;

a collector ~~second~~ electrode; and

a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode;

wherein there is no further electrode located between the ion emitting electrode and the collector electrode; and

wherein the ion emitter electrode ~~said first electrode~~ is one of (1) slack, (2) curved, and (3) coiled and spans a distance, and wherein the ion emitter ~~said first~~ electrode has a length that is at least fifteen percent greater than said distance.

2. (Currently Amended): An ion generator comprising:

an ion emitter ~~a first~~ electrode;

a collector ~~second~~ electrode;

a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode;

wherein there is no further electrode located between the ion emitting electrode and the collector electrode; and

wherein said ion emitter ~~first~~ electrode is slack and spans a distance, and wherein said ion emitter ~~first~~ electrode has a length that is at least fifteen percent greater than said distance.

3. (Canceled)

4. (Currently Amended): The ion generator of claim 2 wherein said length of said ion emitter ~~first~~ electrode is between fifteen percent to thirty percent greater than said distance.

5. (Currently Amended): An ion generator comprising:

an ion emitter ~~a first~~ electrode;

a collector ~~second~~ electrode; and

a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode;

wherein there is no further electrode located between the ion emitting electrode and the collector electrode; and

wherein said ion emitter ~~first~~ electrode is a coil and spans a distance, and wherein said ion emitter ~~first~~ electrode has a length that is at least fifteen percent greater than said distance.

6. (Currently Amended): The ion generator of claim 5 wherein said ion emitter ~~first~~ electrode is at least two times longer than said distance.

7. (Currently Amended): The ion generator of claim 5 wherein said ion emitter ~~first~~ electrode is between two to three times longer than said distance.

8. (Currently Amended): An ion generator comprising:

an ion emitter ~~a first~~ electrode;

a collector ~~second~~ electrode; and

a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode;

wherein there is no further electrode located between the ion emitting electrode and the collector electrode; and

wherein said ion emitter ~~first~~ electrode has a plurality of curves and spans a distance, and wherein said ion emitter ~~first~~ electrode has a length that is at least fifteen percent greater than said distance.

9. (Original): The generator of claim 8 wherein said plurality of curves are in the same plane.

10. (Canceled)

11. (Currently Amended): An ion generator comprising:

a ~~first~~ means for emitting ions ~~providing an electrode~~ having a length that is at least fifteen percent greater than a distance that the ~~electrode~~ means spans;

a collector ~~second~~ electrode; and

a voltage generator to provide a potential difference between the means for emitting ions ~~first electrode~~ and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the means for emitting ions ~~first electrode~~ to the collector ~~second~~ electrode.

12. (Currently Amended): In an ion generator comprising a ion emitter ~~first~~ electrode that spans a distance and a collector ~~second~~ electrode, and a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode, the improvement including:

said ion emitter ~~first~~ electrode being slack so that its length is at least fifteen percent greater than said distance that said ion emitter ~~first~~ electrode spans, in order to enhance emissivity.

13. (Currently Amended): In an ion generator comprising an ion emitter ~~a first~~ electrode that spans a distance and a collector ~~second~~ electrode, and a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode, the improvement including:

said ion emitter ~~first~~ electrode including a plurality of curves that cause its length to be at least fifteen percent greater than said distance in order to enhance emissivity.

14. (Currently Amended): In an ion generator comprising an ion emitter ~~a first~~ electrode that spans a distance and a collector ~~second~~ electrode, and a voltage generator to provide a voltage potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode, the improvement including:

said ion emitter ~~first~~ electrode being coiled so that its length is at least fifteen percent greater than the distance that said ion emitter ~~first~~ electrode spans, in order to enhance emissivity.

15. (Currently Amended): A method for generating ions including the steps of:

providing an ion emitter ~~a first~~ electrode that is sufficiently slack, curved or coiled such that its length is at least fifteen percent greater than a distance that said ion emitter ~~first~~ electrode spans;

providing a collector ~~second~~ electrode; and

providing a voltage generator to provide a potential difference between the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode.

16. (Canceled)

17. (Canceled):

18. (Currently Amended): The generator of claim 1 wherein said ion emitter ~~first~~ electrode is positively charged and the collector ~~second~~ electrode is negatively charged.

19. (Currently Amended): The method of claim 15, including providing said ion emitter ~~first~~ electrode such that its said length is between two to three times longer than said distance.

20. (Currently Amended): A device for conditioning air including  
a housing with an air inlet and an air outlet;  
an ion emitter ~~a first~~ electrode;  
a collector ~~second~~ electrode;  
said ion emitter ~~first~~ electrode located closer to said air inlet than said collector ~~second~~ electrode;  
said collector ~~second~~ electrode located closer to said air outlet than said ion emitter ~~first~~ electrode; and  
a potential generator electrically coupled to the ion emitter ~~first~~ electrode and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a downstream direction from the ion emitter ~~first~~ electrode to the collector ~~second~~ electrode; and  
wherein said ion emitter ~~first~~ electrode spans a distance, and wherein said ion emitter ~~first~~ electrode is sufficiently slack, curved or coiled such that its length is at least fifteen percent greater than said distance.

21. (Currently Amended): A device for conditioning air including  
a housing with an air inlet and an air outlet  
a ~~first~~ means for emitting ions ~~providing a first electrode~~ having a length that is at least  
fifteen percent greater than a distance that the means ~~first electrode~~ spans;  
a collector ~~second~~ electrode;  
said means for emitting ions ~~is first electrode~~ located closer to said air inlet than ~~is~~ said  
collector ~~second~~ electrode;  
said collector ~~second~~ electrode located closer to said air outlet than ~~is~~ said means for  
emitting ions ~~first electrode~~; and  
a potential generator electrically coupled to the means for emitting ions ~~first electrode~~  
and the collector ~~second~~ electrode in order, when energized, to create a flow of air in a  
downstream direction from the means for emitting ions ~~first electrode~~ to the collector ~~second~~  
electrode.
22. (Currently Amended): The generator of claim 1 wherein when said voltage generator is  
energized, ions are generated at said means for emitting ions ~~first electrode~~ and directed toward  
said collector ~~second~~ electrode.
23. (Currently Amended): The ion generator of claim 1 wherein said collector ~~second~~  
electrode is removable by a user for cleaning.
24. (Currently Amended): The generator of claim 1 wherein said generator is incorporated in  
a housing, and said housing comprises an electro-kinetic air transporter-conditioner.

25. (Currently Amended): The generator of claim 1 wherein said generator is incorporated in a housing and, said housing comprises an electro-kinetic air transporter-conditioner and said housing has a top and said collector ~~second~~ electrode is removable from said top for cleaning.

26. (Currently Amended): The generator of claim 1 wherein:  
said generator is incorporated in an elongated freestanding housing with a top, and said housing comprises an electro-kinetic air transporter-conditioner; and  
wherein said collector ~~second~~ electrode is elongated and is removable from said top of said housing.

27. (Currently Amended): The generator of claim 1 wherein:  
said generator is incorporated in an elongated housing with a top and, said housing comprises an electro-kinetic air transporter-conditioner; and  
wherein said collector ~~second~~ electrode is elongated and is at least partially removable from said top of said housing.

28. (Currently Amended): The generator of claim 1 wherein:  
said generator is incorporated in an elongated freestanding housing with a top, and said housing comprises an electro-kinetic air transporter-conditioner; and  
wherein said collector ~~second~~ electrode is elongated and is telescopingly removable through said top of said housing.



29. (Currently Amended): A device for conditioning air, comprising:

a housing having an inlet and an outlet;

an ion generator disposed within said housing, that creates an airflow in a downstream direction, when energized, from said inlet to said outlet, including:

an ion emitter ~~a first~~ electrode that spans a distance within said housing, said ion emitter ~~first~~ electrode created from a wire-shaped element, and formed into a coil-shape such that a length of said ion emitter electrode is at least fifteen percent greater than said distance;

a collector ~~second~~ electrode located downstream of said ion emitter ~~first~~ electrode;

a high voltage generator electrically coupled to said ion emitter ~~first~~ and collector ~~second~~ electrode.

30. (Currently Amended): The device as recited in claim 29, wherein said wire-shaped element has a length two to three times greater than said distance that said ion emitter ~~first~~ electrode spans.

31. (Original): The device as recited in claim 29, wherein the diameter of said coil-shape is approximately ten times greater than the diameter of said wire-shaped element.

32. (Currently Amended): The device as recited in claim 29, wherein said ion emitter ~~first~~ electrode is an ion emitting surface, that can electrically charge particles contained within the airflow.

33. (Currently Amended): The device as recited in claim 29, wherein said collector ~~second~~ electrode has a polarity opposite of said ion emitter ~~first~~ electrode, which collector ~~second~~ electrode collects the electrically charged particles.

34. (Currently Amended): A device for conditioning air, comprising:

a housing having an inlet and an outlet;

an ion generator disposed within said housing, that creates an airflow in a downstream direction, when energized, from said inlet to said outlet, including:

an ion emitter ~~a first~~ electrode that spans a distance within said housing, said ion emitter ~~first~~ electrode created from a wire shaped element, and formed into a curved configuration such that a length of said ion emitter electrode is at least fifteen percent greater than said distance;

a collector ~~second~~ electrode located downstream of said first electrode;

a high voltage generator electrically coupled to said ion emitter ~~first~~ and collector ~~second~~ electrode.

35. (Canceled):

36. (Currently Amended): The device as recited in claim 34, wherein said ion emitter ~~first~~ electrode is an ion emitting surface that can electrically charge particles contained within the airflow.

37. (Currently Amended): The device of claim 21 wherein said housing has as top and said collector ~~second~~ electrode is removable through said top.

38. (Currently Amended): The device of claim 21 wherein said housing is an elongated freestanding housing with a top and said collector ~~second~~ electrode is removable through said top of said housing.

39. (Currently Amended): The device of claim 21 wherein said housing is an elongated housing with a top and said collector ~~second~~ electrode is removable through said top of said housing.

40. (Currently Amended): The device as recited in claim 36, wherein said collector ~~second~~ electrode has a polarity opposite of said ion emitter ~~first~~ electrode, which collector ~~second~~ electrode can collect the electrically charged particles.

41. (Currently Amended): An ion generator comprising:

an ion emitter ~~a first~~ electrode that spans a distance;

at least two collector ~~second~~ electrodes that each include a substantially flat surface, each substantially flat surface being substantially parallel to one another; and

a voltage generator to provide a potential difference between said ion emitter ~~first~~ electrode and said collector ~~second~~ electrodes;

wherein said ion emitter ~~first~~ electrode has a plurality of curves that cause a length of said ion emitter ~~first~~ electrode to be longer than said distance, said plurality of curves being in a same

plane, said plane being parallel to said substantially flat surfaces of said collector ~~second~~ electrodes.